

Serial No. 10/672,074

Atty. Docket No. 48544-00012

**AMENDMENTS TO THE DRAWINGS**

Applicant submits herewith 23 sheets of replacement drawings in response to the Notice to File Missing Parts of NonProvisional Application mailed 19 November 2003.

Please delete the original drawings (Figures 1-23) filed 29 September 2003 and insert therefore the attached replacement drawings (Figures 1-23).

Attachment: 23 Sheets Replacement Drawings (Figures 1-23)

REPLACEMENT SHEET  
SHEET 1 OF 23



Strain	Genotype	Parent Strain	References
SC5314	Wild type		Gillum et al., 198 Mol. GEN. GENET. 179-82 ( 1984)
CAI4	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434	SC5314	Fonzi et al., 134 GENETICS 717-28 (1993)
*UnoPP-1	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434 $\Delta$ eno1::URA3/ENO1	CAI4	Postlethwait et al., 177 J. BACTERIOL. 1772-9 (1995)
CAC1	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434 CAP1/cap1::hisG-URA3-hisG	CAI4	This study
CAC1-1	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434 CAP1/cap1::hisG	CAC1	This study
CAC1-1A	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434 CAP1/cap1::hisG-URA3-hisG	CAC1-1	This study
CAC1-1A1	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434 cap1::hisG/cap1::hisG	CAC1-1A	This study
CACRE1	$\Delta$ ura3::imm434/ $\Delta$ ura3::imm434 CAP1/cap1::hisG ENO1/eno13	CAC1-1A1	This study

\*a CAI4 derivative made Ura<sup>+</sup> by disruption of an enolase gene with URA3

Figure 1

REPLACEMENT SHEET  
SHEET 2 OF 23

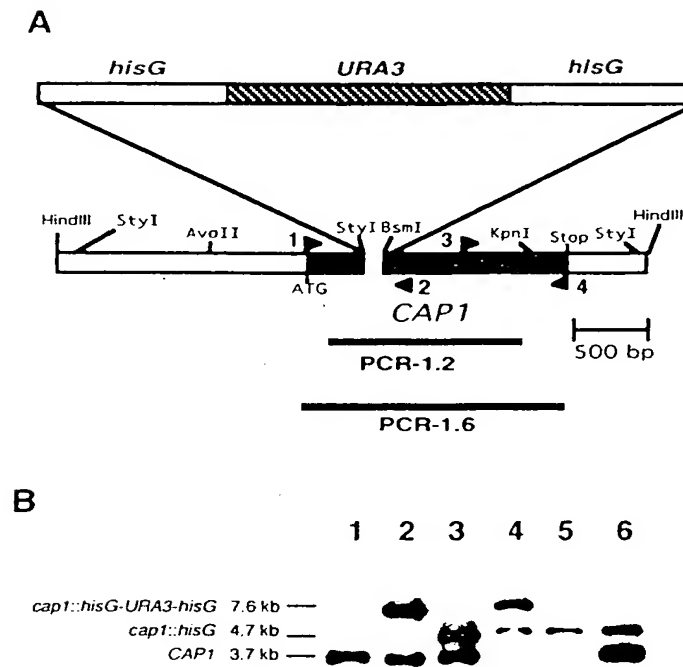


Figure 2

3  
G.  
F

[illegible]

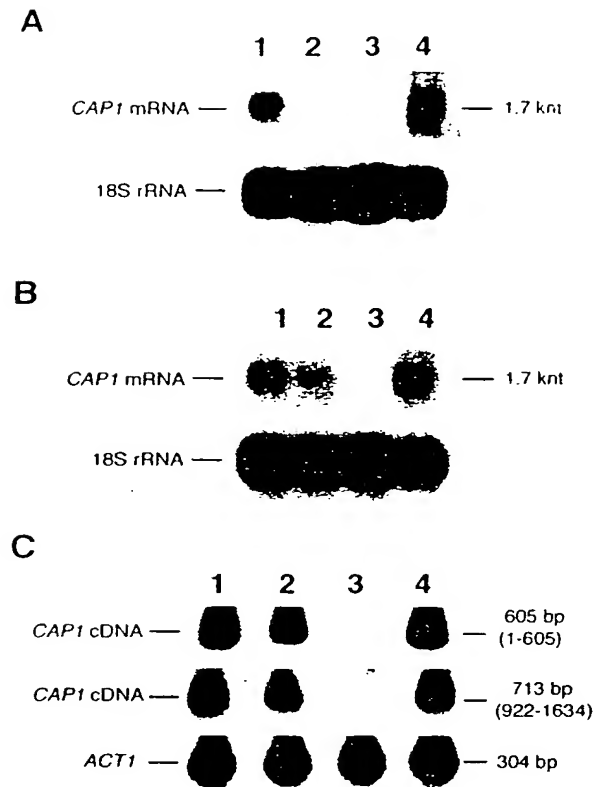


Figure 4

Strains	Doubling Time (hour)*					
	Rich media (YPD)			Minimal media (YNB)		
	27°C	30°C	37°C	27°C	30°C	37°C
UnoPP-1	2.2	1.6	2.0	2.9	2.9	3.0
CAC1	2.2	1.7	2.0	2.9	2.9	3.0
CAC1-1A	2.3	1.7	2.2	3.9	3.7	3.8
CACRE1	2.2	1.7	2.1	2.8	2.9	2.9

\* Mean value from two independent experiments that differed by less than 20%

Figure 5

REPLACEMENT SHEET  
SHEET 6 OF 23

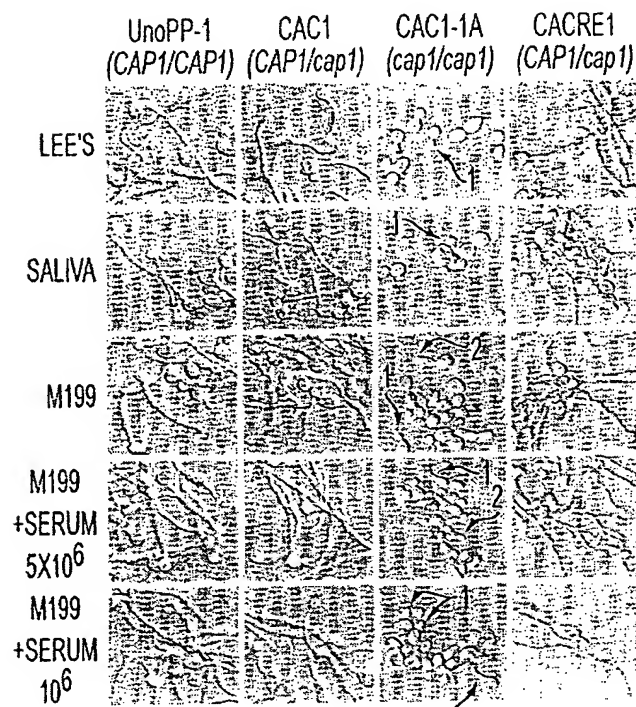


FIG. 6A

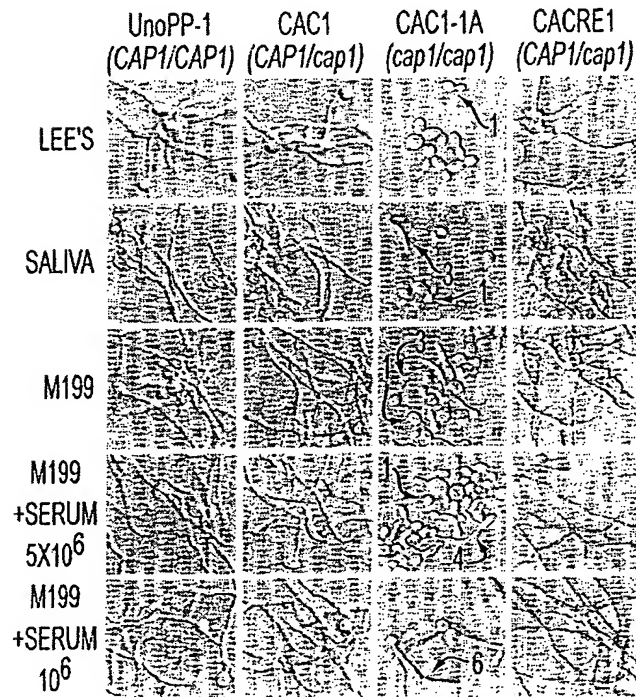
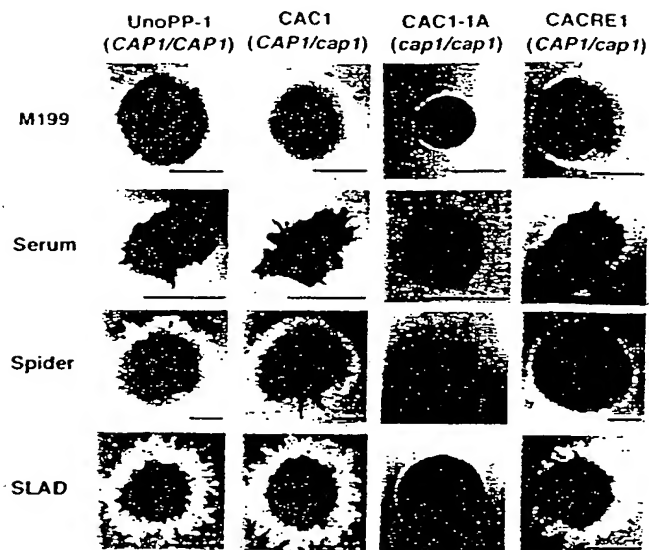


FIG. 6B

REPLACEMENT SHEET  
SHEET 7 OF 23

A



B

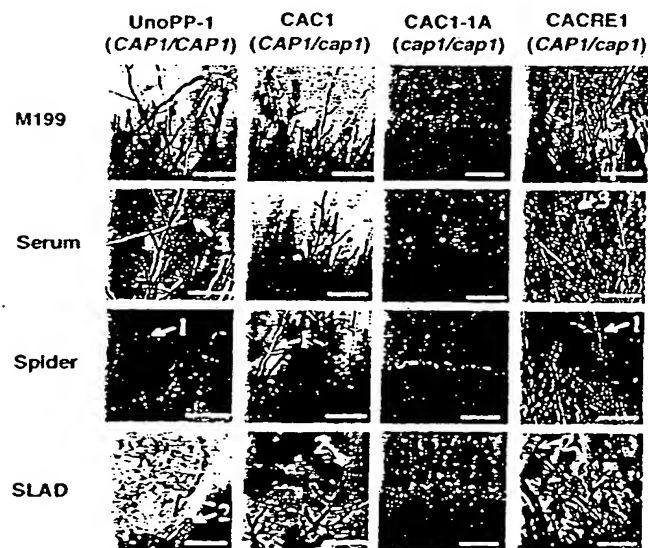


Figure 7



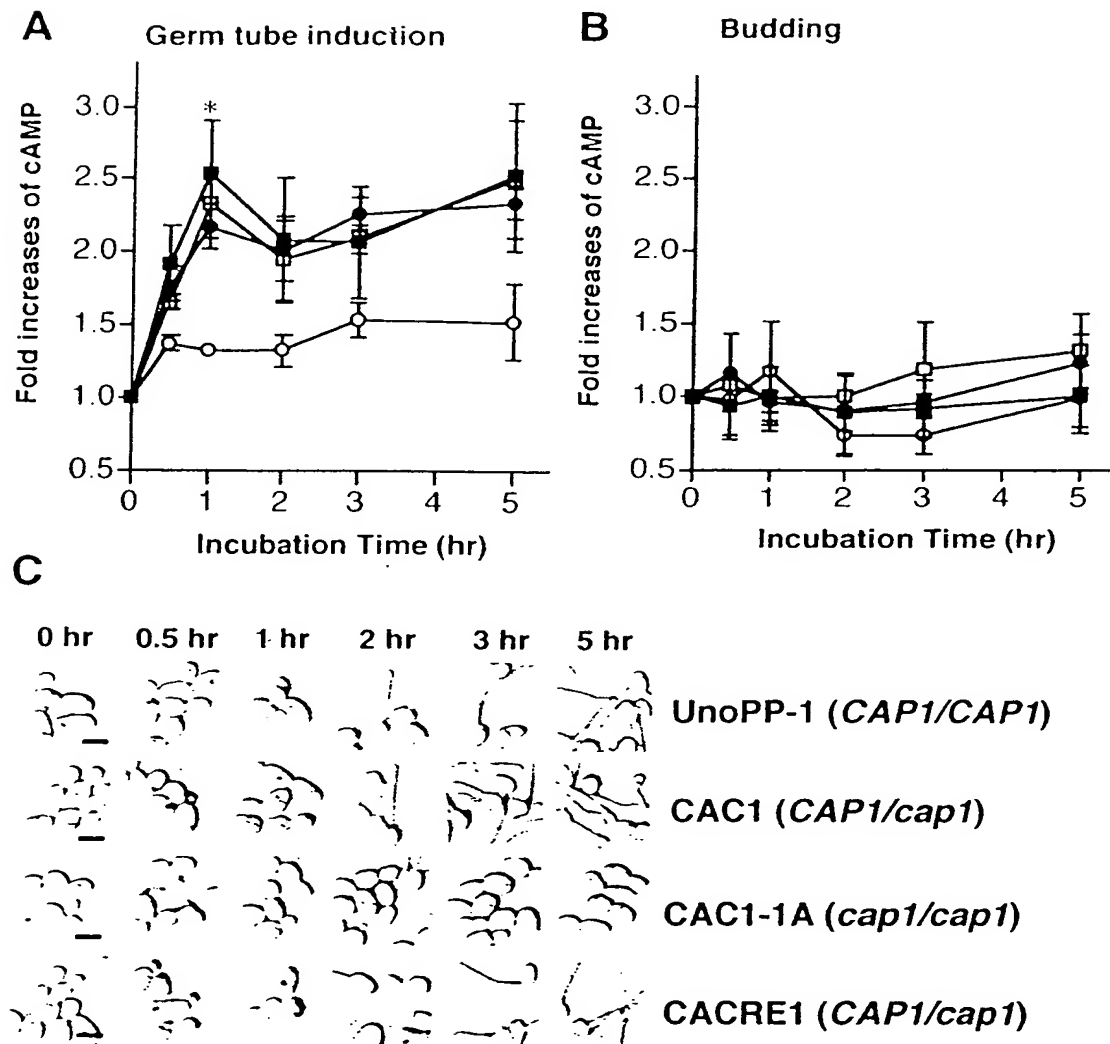
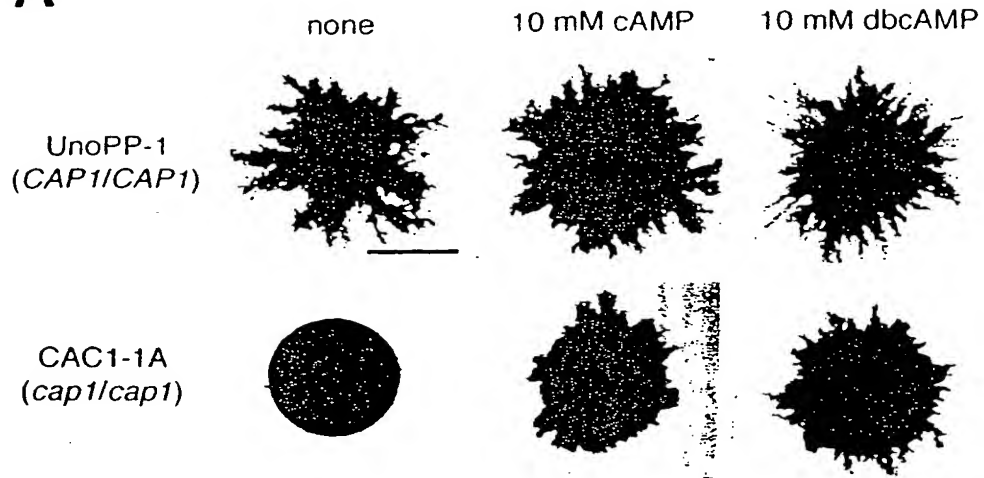


Figure 8

**A**



**B**

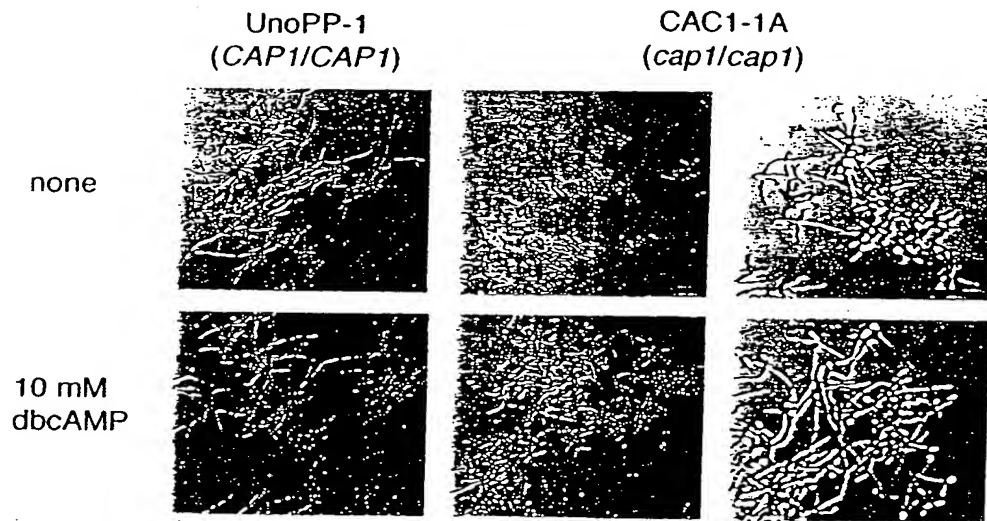


Figure 9

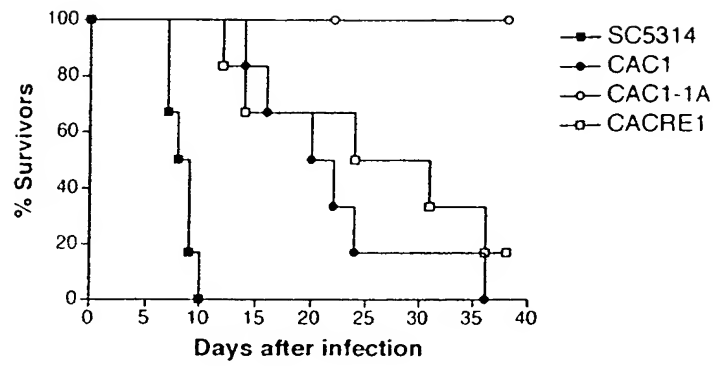


Figure 10

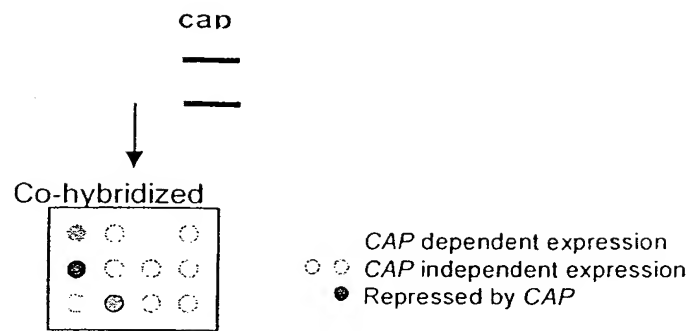


Figure 11

# REPLACEMENT SHEET

## SHEET 12 OF 23

Strain	Genotype	Parent Strain	References
SC5314	Wild type		(Gillum <i>et al.</i> , 1984)
CAI4	$\Delta ura3::imm434/\Delta ura3::imm434$	SC5314	(Fonzi and Irwin, 1993)
UnoPP-1	As CAI4, but $\Delta eno1::URA3/ENO1$	CAI4	(Posillethwait and Sundstrom, 1995)
CAC1-1A	As CAI4, but $cap1::hisG/cap1::hisG-URA3-hisG$	CAC1-1	(Bahn and Sundstrom, 2001)
CAC1-1A1	As CAI4, but $cap1::hisG/cap1::hisG$	CAC1-1A	(Bahn and Sundstrom, 2001)
CAC1-1A1E1	As CAC1-1A1, but $\Delta eno1::URA3/ENO1$	CAC1-1A1	This study
BPS1	As CAI4, but $PDE2/pde2::hisG-URA3-hisG$	CAI4	This study
BPS2	As CAI4, but $PDE2/pde2::hisG$	BPS1	This study
BPS3	As CAI4, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS2	This study
BPS4	As CAI4, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS2	This study
BPS7	As CAI4, but $pde2::hisG/pde2::hisG$	BPS4	This study
BPS13	As BPS2, but $\Delta eno1::URA3/ENO1$	BPS2	This study
BPS15	As BPS7, but $\Delta eno1::URA3/ENO1$	BPS7	This study
BPS9 (revertant)	As CAI4, but $PDE2/pde2::hisG \Delta eno1::URA3/ENO1$	BPS7	This study
BPS10 (revertant)	As CAI4, but $PDE2/PDE2 \Delta eno1::URA3/ENO1$	BPS7	This study
BPS11 (revertant)	As CAI4, but $PDE2/PDE2 \Delta eno1::URA3/ENO1$	BPS7	This study
BPS16	As CAC1-1A1, but $PDE2/pde2::hisG-URA3-hisG$	CAC1-1A1	This study
BPS17	As CAC1-1A1, but $PDE2/pde2::hisG$	BPS16	This study
BPS18	As CAC1-1A1, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS17	This study
BPS19	As CAC1-1A1, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS17	This study
BPS20	As CAC1-1A1, but $pde2::hisG/pde2::hisG$	BPS18	This study
BPS24	As BPS17, but $\Delta eno1::URA3/ENO1$	BPS17	This study
BPS27	As BPS20, but $\Delta eno1::URA3/ENO1$	BPS20	This study
BPS22 (revertant)	As CAC1-1A1, but $PDE2/pde2::hisG \Delta eno1::URA3/ENO1$	BPS20	This study
EGFP3	As CAI4, but $\Delta eno1::ENOp-GFP-URA3/ENO1$	CAI4	(Staab <i>et al.</i> , unpublished)
EPDE2-3	As CAI4, but $\Delta eno1::ENOp-PDE2-URA3/ENO1$	CAI4	This study

Figure 12

CaPDE2 335 N P P I Q T V L G L V A I A L G H D V G H P P G T I N D E M I K F S A P T A L R Y 372  
ScPDE2 288 N P V Q T L E L C M A T A I G H D V G H P P G T I N N Q L L C N C E S E V V A Q N F 325  
HuPDE2A3 682 E D M E I T F A E F I S C M C H D L H R G T N N S F O V I A S K S E V V A L A L Y 719

CaPDE2 373 N D R - S V L E S Y H A S I E F I K V L R I C W P D L L T C T I E E K S E L 409  
ScPDE2 326 K N V - S I L E N F H R E L E O - Q L L S E H W P - - L K L S I S K K K - - 357  
HuPDE2A3 729 S S E G S V M E R H H F A Q A I I - A I L E N T H G C N - I F D H F S R K D Y Q 755

CaPDE2 410 T I R S L N I S S I L A T D M G E H N E Y V N R N K S F K T H N E I L N H D 447  
ScPDE2 358 - F D P I S E A I L A T O M A L H S Q I Y E D R E M H E N P M K Q I T - - 390  
HuPDE2A3 756 R M L D L M R D I I L A T G D L A H H L R I F K D E Q K M A E V G Y D R N N K 793

CaPDE2 448 N T V K P L S A L E S K C A D I S N V T R P L R V S A O W A M V L S R E E 484  
ScPDE2 394 - - - - T L S L I L K A A D I S N V T R P L S I S A R W A Y E I T L E E 422  
HuPDE2A3 791 Q H H R I E L C L M T S C D L S D Q T K G W K T T T R K I A E L I Y K E E 830

Figure 13

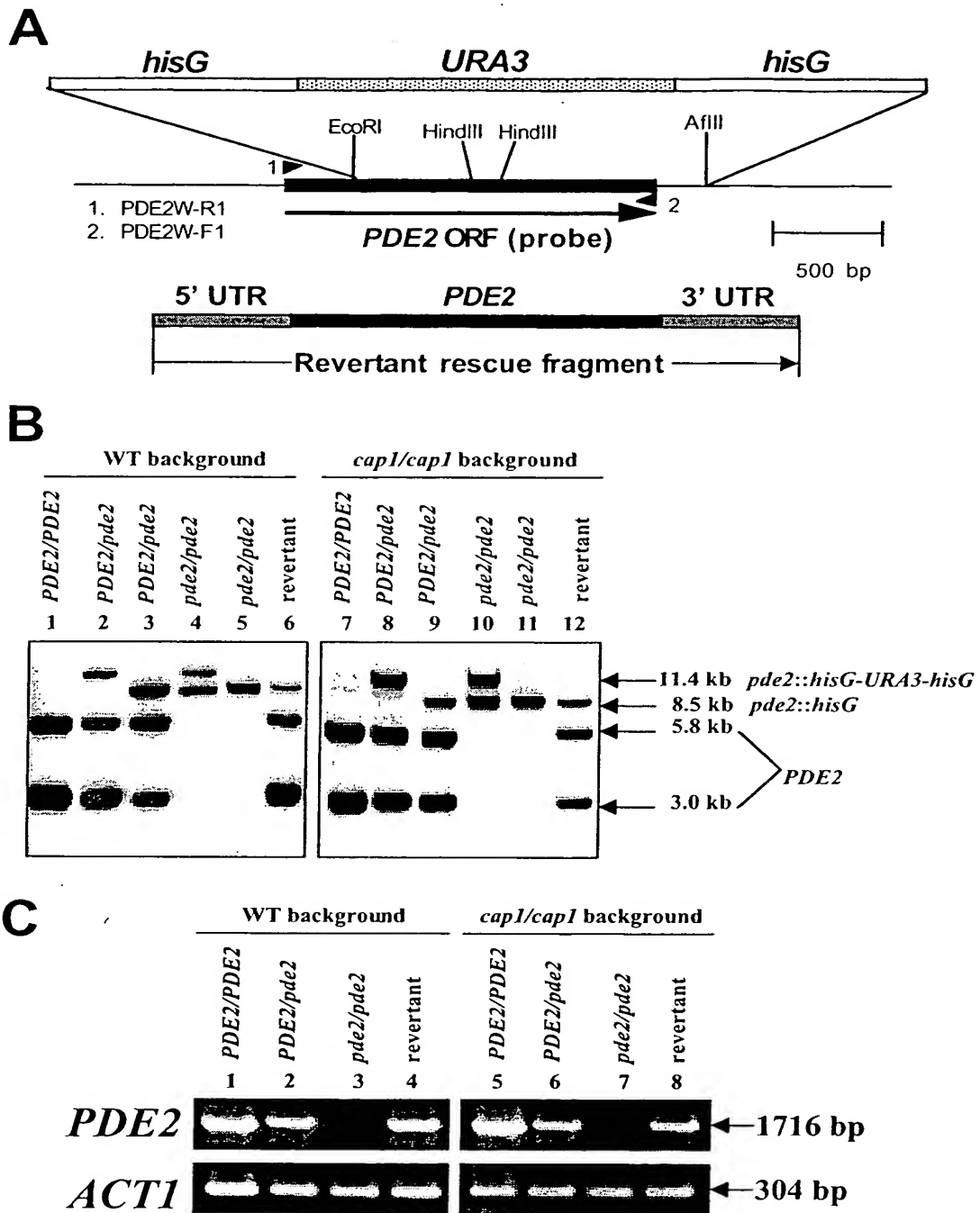


Figure 14

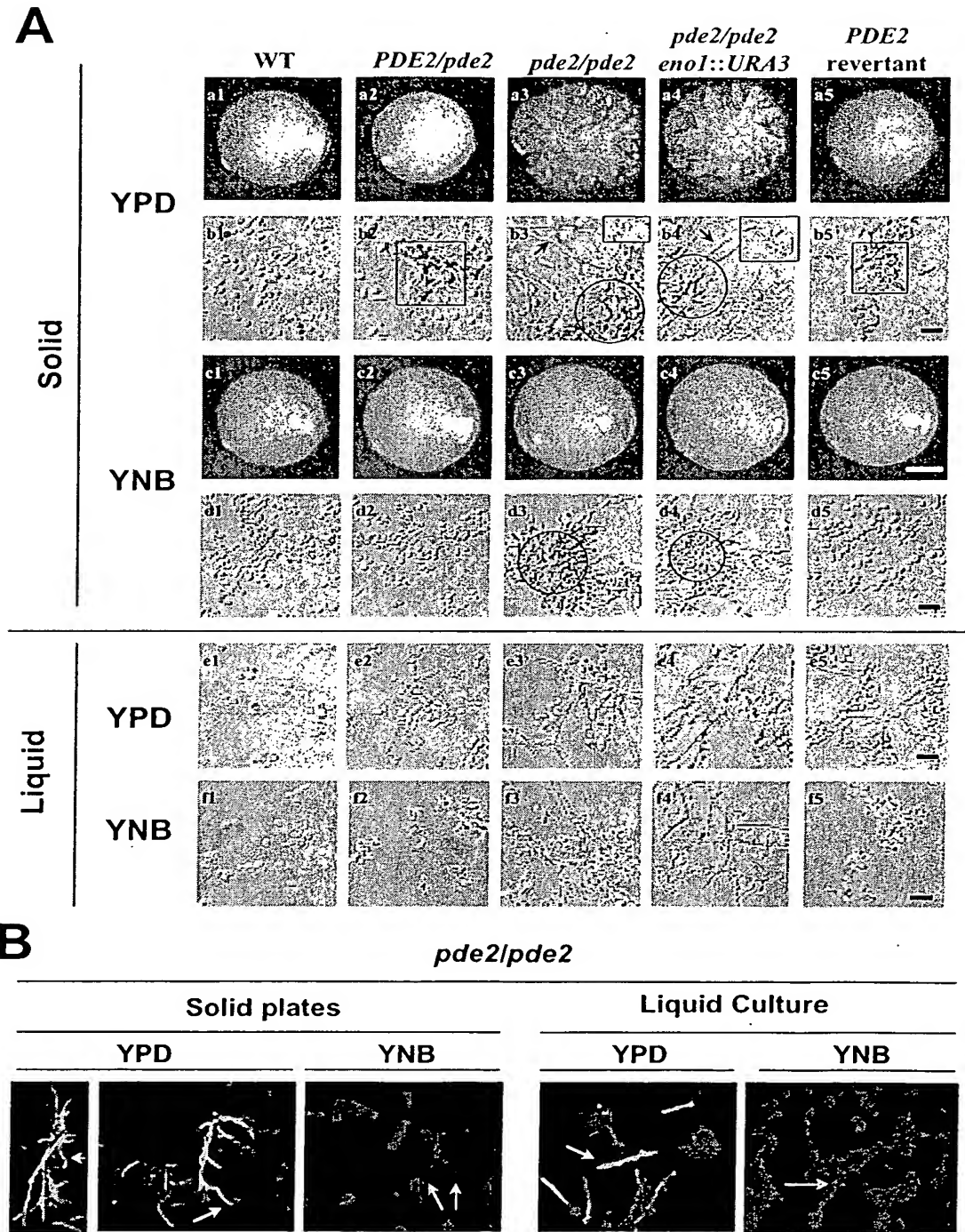


Figure 15



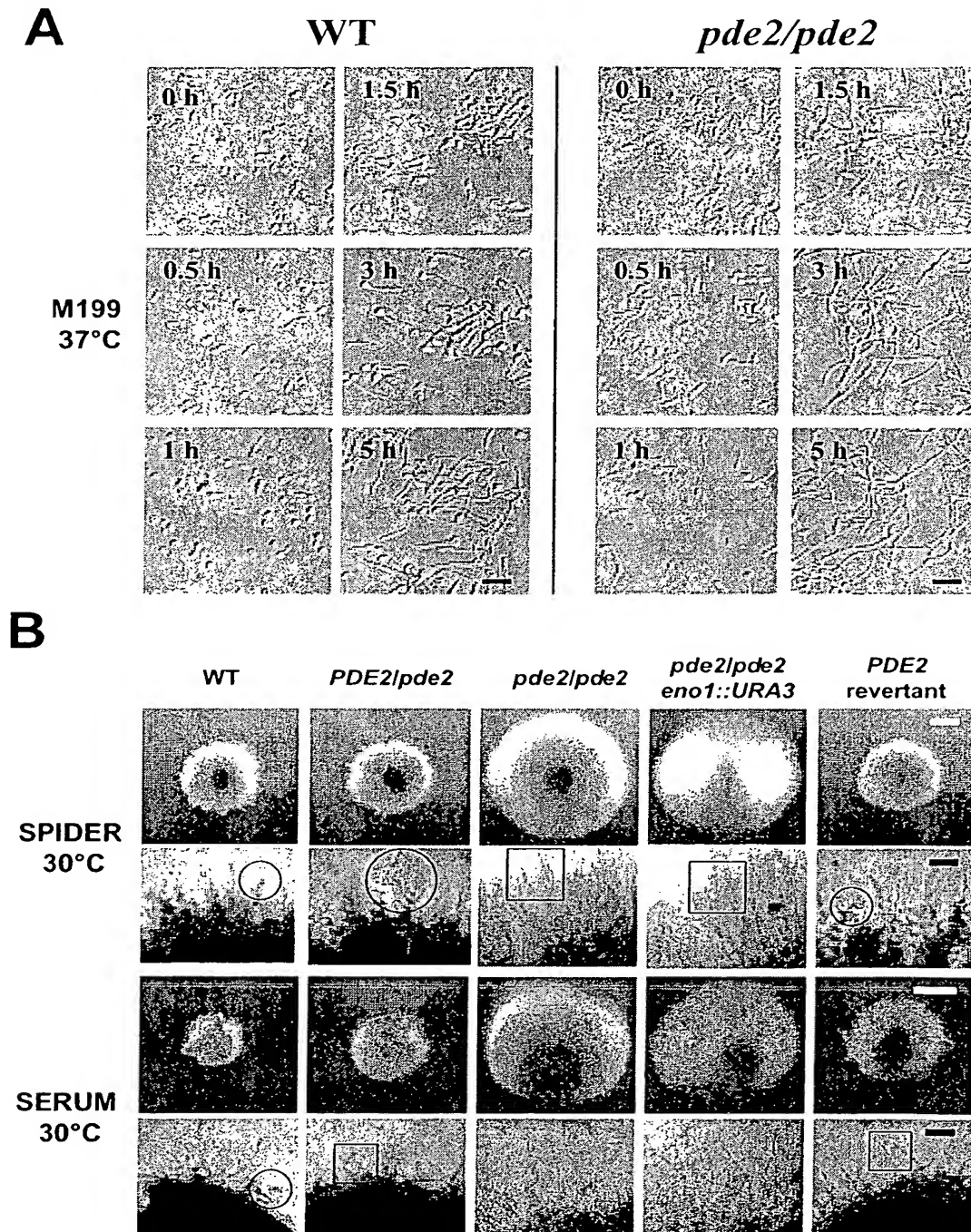


Figure 16

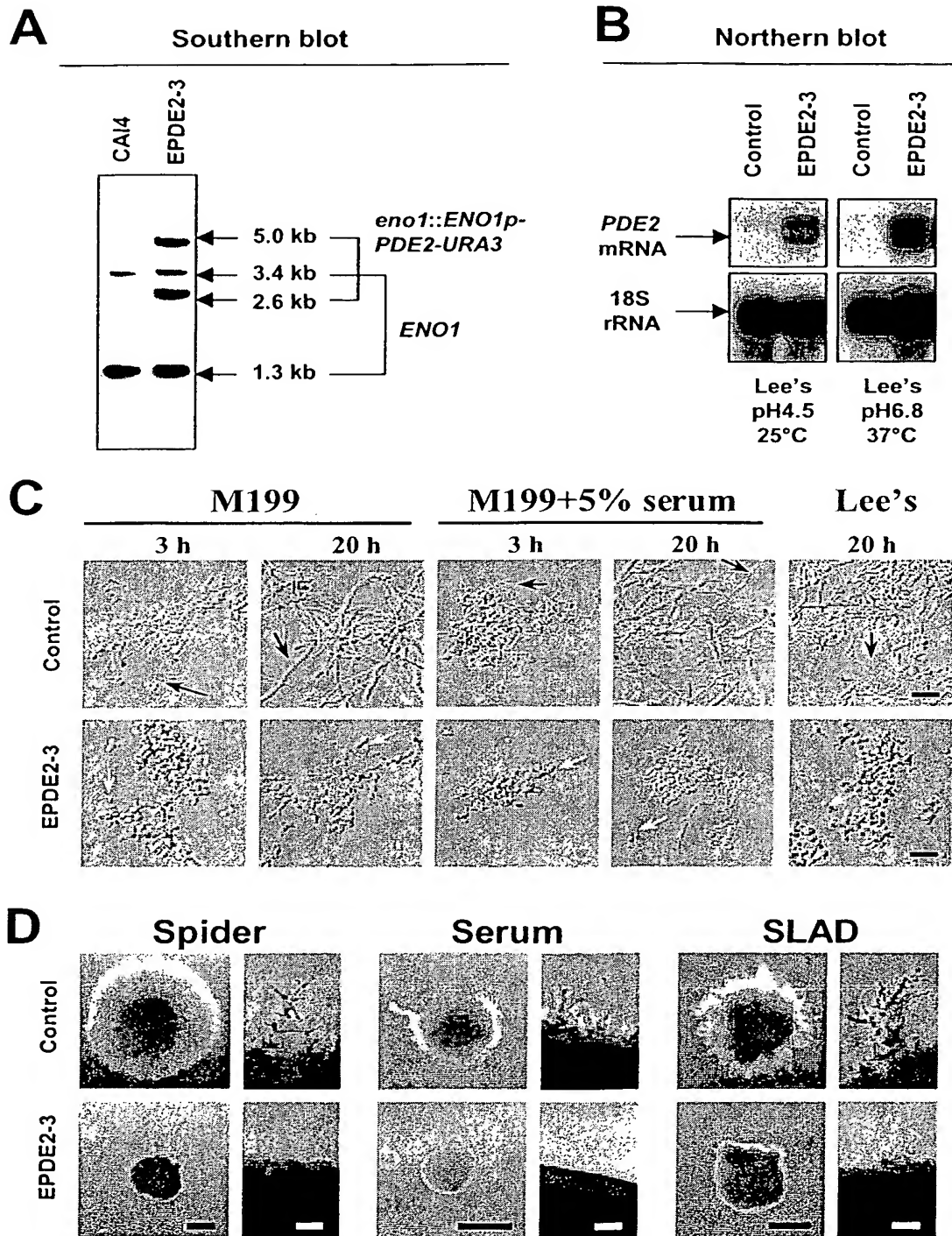
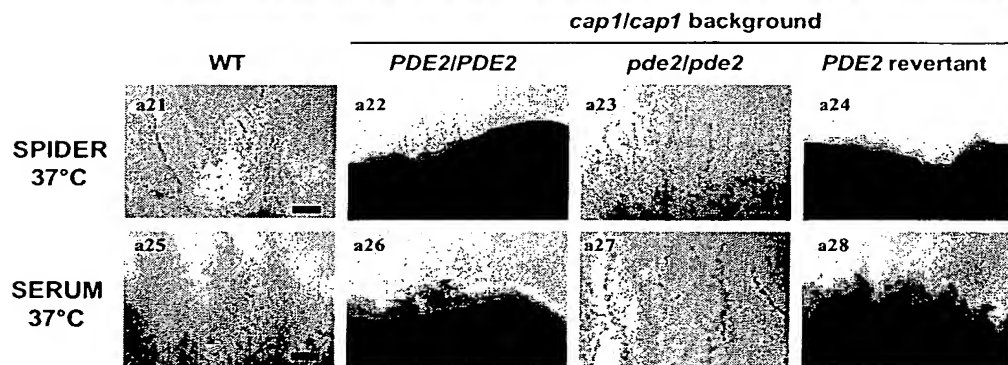
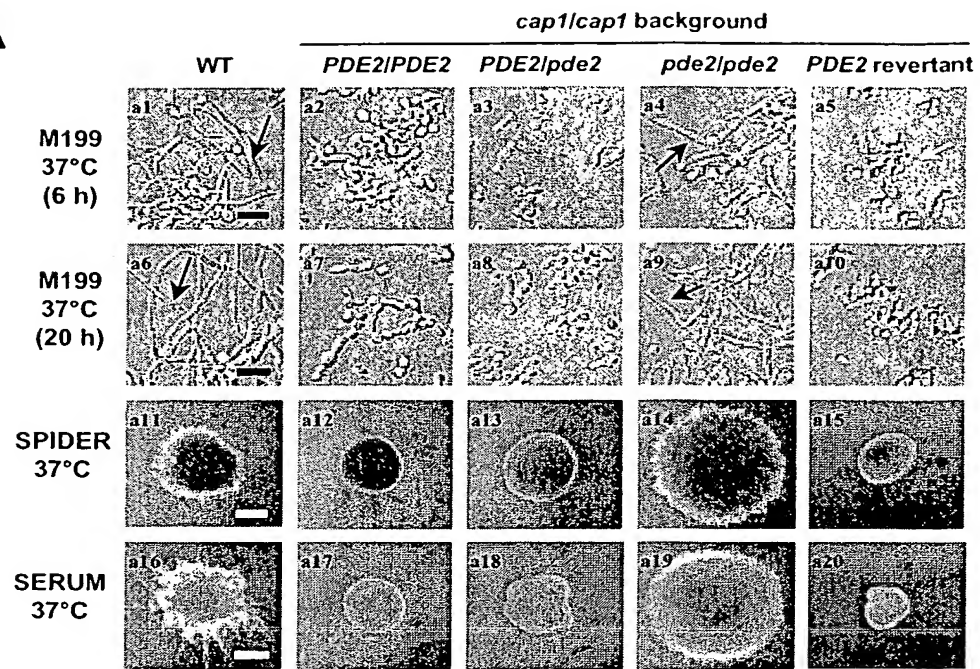


Figure 17

**A**



**B**

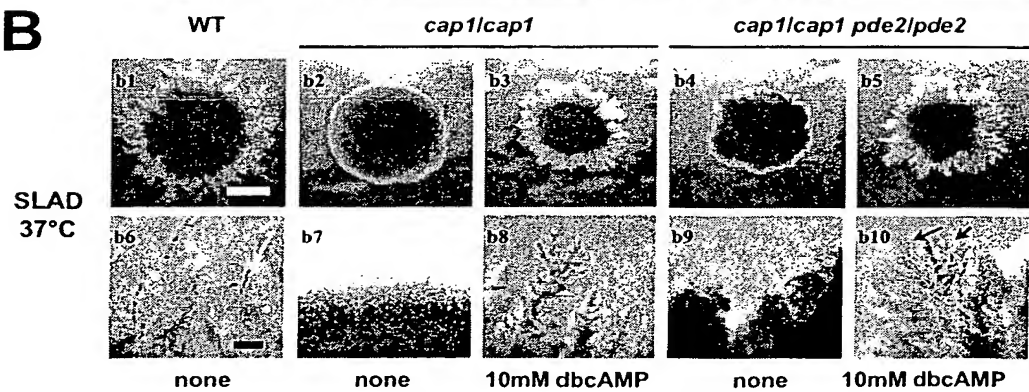
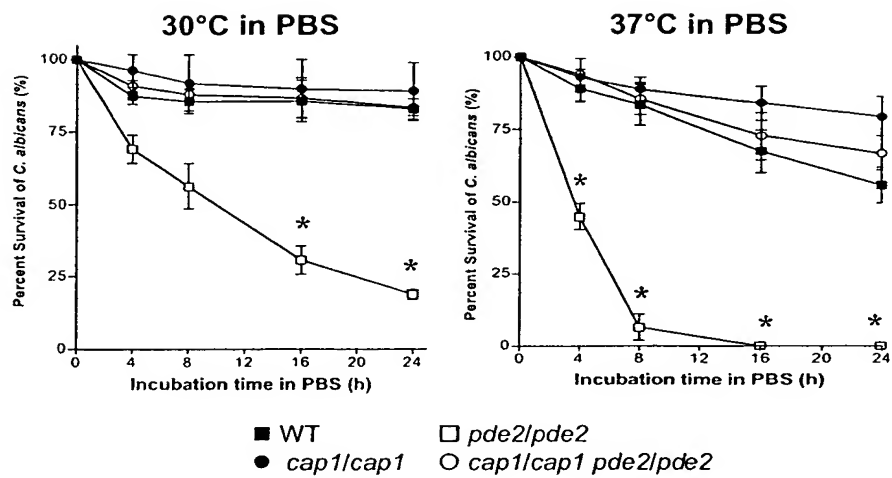


Figure 18

**A**



**B**

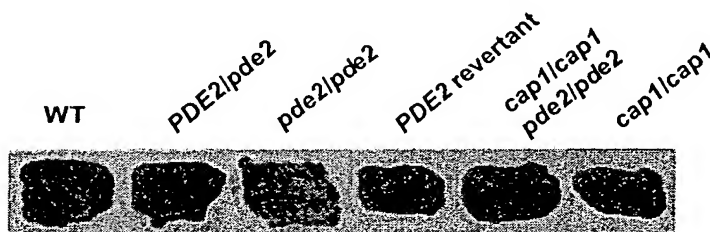
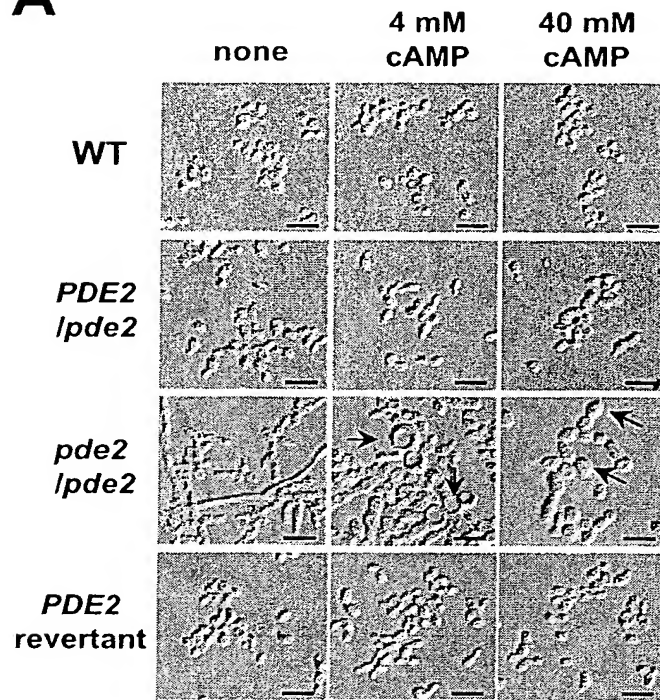


Figure 19

**A**



**B**

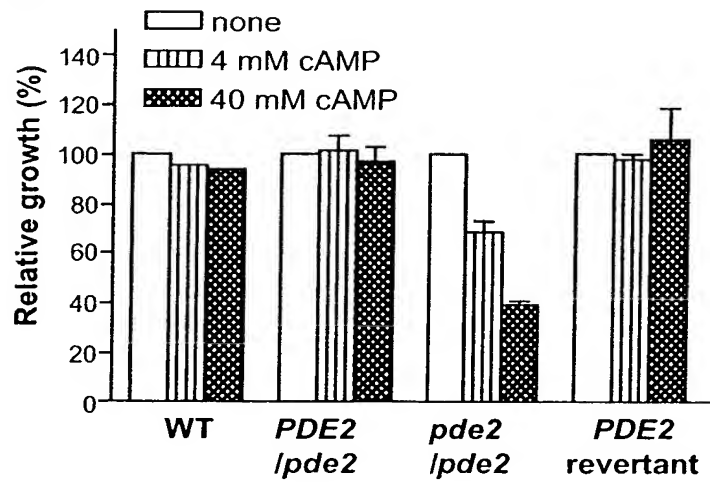
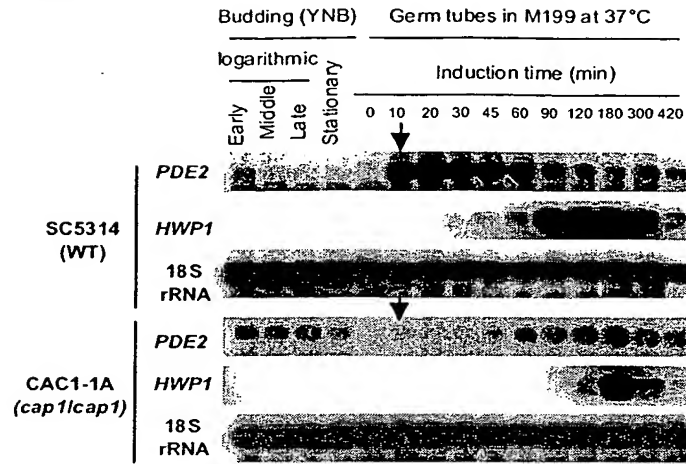


Figure 20

**A**



**B**

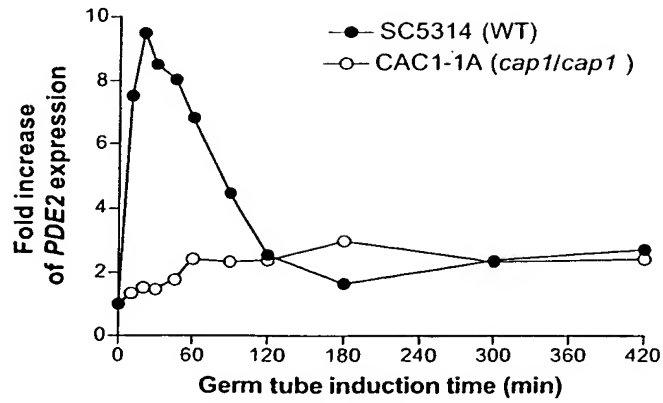


Figure 21

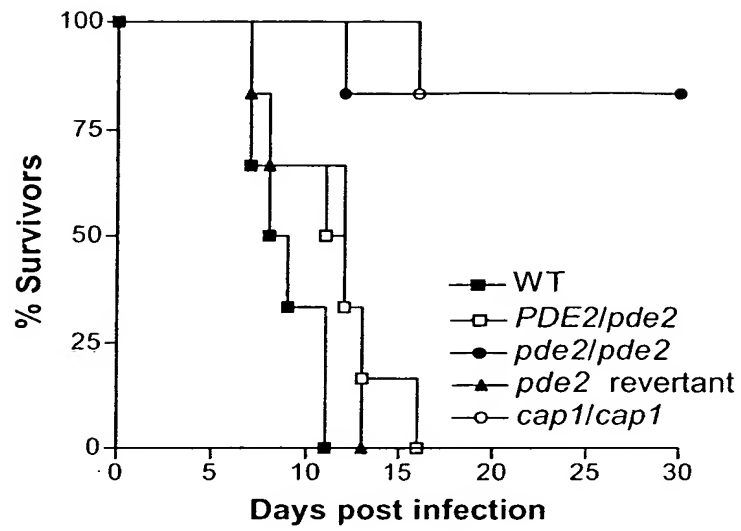


Figure 22

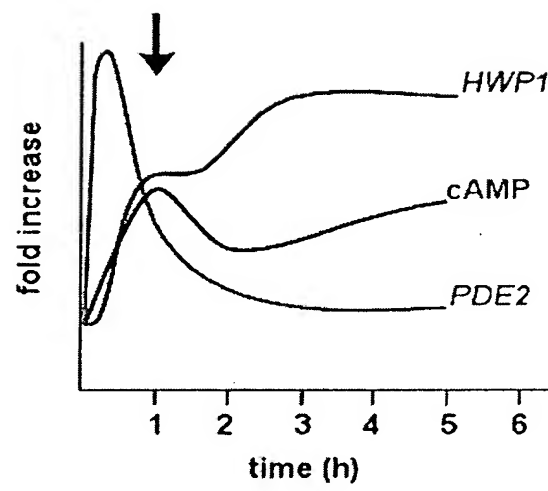


Figure 23